DAVIS DESIGN

Architecture · Engineering · Interior Design

ADDENDUM

PROJECT: University of South Dakota
Patterson Hall
Mechanical / Electrical Infrastructure Upgrades
Vermillion, South Dakota

ADDENDUM NUMBER

AD-1

ISSUED BY:

Matt Metcalf, Architect
Chandler Sanders, Interior Designer
Jeff Kulhanek, Mechanical Engineer
Kori Hickle, Electrical Engineer

PROJECT #: DDI No. 14-0185 / OSE No. R0614--15X

DATE ISSUED: Thursday, January 22, 2015

This addendum is issued by the Architect to all known bidders before receipt of proposals, for the purpose of explaining, interpreting, or modifying the original plans and specifications. When enumerated by the bidder upon the proposal sheet, the information or instructions given hereon will be equally binding upon all parties as if included in the original plans and specifications.
BIDDER MUST ENTER THE NUMBER OF THIS ADDENDUM ON HIS PROPOSAL SHEET

THE FOLLOWING ITEMS ARE APPLICABLE TO THE SPECIFICATIONS:

AD-1, ITEM 1:

In reference to Section 033000 - Cast-In-Place Concrete, under Article 2.3, Paragraph B, add Sub-paragraph 3 reading "Aggregate shall be crushed sioux quartzite."

AD-1, ITEM 2:

In reference to Section 033000 - Cast-In-Place Concrete, under Article 2.9, Paragraph D, revise Sub-paragraph 1 to read "Minimum Compressive Strength: 4,000 psi at 28 days, and as required on the Drawings."

AD-1, ITEM 3:

In reference to Section 270536 – Cable Trays for Communications Systems, under Article 2.2, Paragraph A, Sub-paragraph 4, Sub-subparagraph b, change '2-inch' depth to '4-inch' depth.

THE FOLLOWING ITEMS ARE APPLICABLE TO THE DRAWINGS:

AD-1, ITEM 4:

Add general note to all drawing sheets reading "Coordinate all activity in any occupied space with USD Project Manager and users." As a matter of clarification 132 Office suite and Offices 101 thru 109 are occupied spaces.

AD-1, ITEM 5:

In reference to Sheet G-101, Elec 125A and Mech 133 shall be part of the Electrical Services phase. As a matter of clarification to Note 1, new panels 'DP1', 'LDP1', 'L1', 'M1', and 'P1' shall be installed and operational by April 13, 2015.

AD-1, ITEM 6:

In reference to Sheet A-101 and Sheet A-102, General Note H, add sentence to this general note reading "Contractor shall remove from site items the Owner deems non-salvageable, typical. Contractor shall provide on-site storage for Owners salvaged items."

AD-1, ITEM 7:

In reference to Sheet A-101, change the title number for "Partial Basement Demolition Plan - Area B" from 2 to 4.

AD-1, ITEM 8:

In reference to 4/A-101, change the reference bubble 2/A-403 to 3/A-403 and change the keynote from 1 to 16.

AD-1, ITEM 9:

In reference to 15/A-401, hold tile back from existing window 1/4" and provide backer-rod and sealant.

AD-1, ITEM 10:

In reference to Sheet A-403, see attached revised sheet.

AD-1, ITEM 11:

In reference to Sheet E-105, Office 123B, add data outlet with two jacks adjacent to quad receptacle.

AD-1, ITEM 12:

In reference to Sheet E-501, Elevator Notes: Note '12', change '16195' to '260553'.

AD-1, ITEM 13:

In reference to Sheet E-501, Elevator Notes, revise '18' to 'Not Used'.

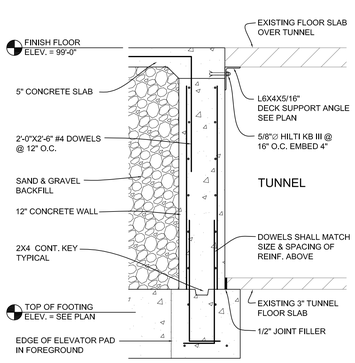
AD-1, ITEM 14:

In reference to Sheet E-501, Elevator Connection Detail, provide duplex receptacle adjacent to oil minder system located in Elec/Storage 117A (coordinate exact location with plumbing contractor). Connect receptacle to existing panel 'A5' via new 20/1 breaker. Provide 3" Schedule 40 PVC with long radius bends from oil minder system to elevator pit (route in tunnel). Coordinate exact requirements with manufacturer.

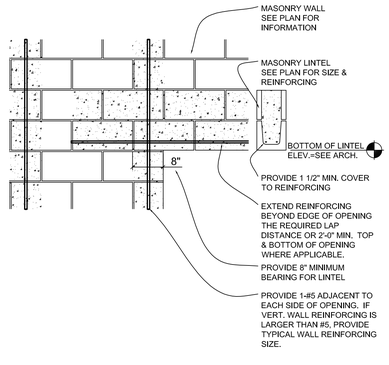
AD-1, ITEM 15:

In reference to Sheet E-601, Electrical Riser Diagram – New, under base bid, provide 2" empty conduit with pull string from panel 'DP1' stubbed to just below ceiling above future location of UPS. Cap end of conduit.

END AD-1



5 Foundation Wall
Scale: No Scale

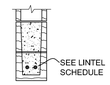


4 Masonry Lintel [L_____] Detail & Schedule
Scale: No Scale

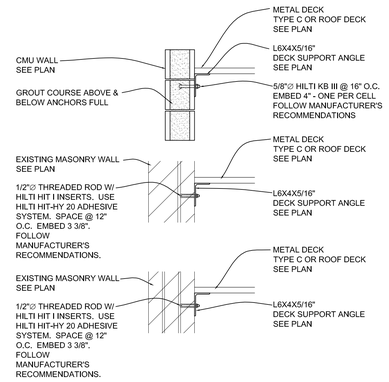
LINTEL/HEADER SCHEDULE

MARK	TYPE	MATERIAL	ELEVATION	REMARKS
L-1	1	8"X16" DEEP W/ 2-#4'S CONT @ BOTTOM	BOTTOM OF LINTEL EL.= SEE ARCH / MECH	TYP. @ 8" CMU U.N.O.

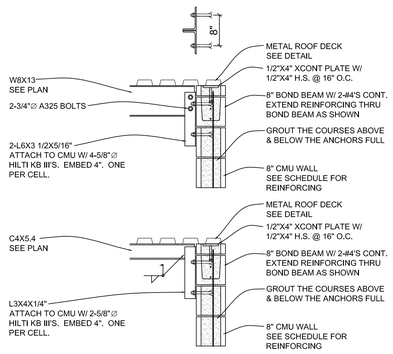
MAONRY NOTES:
1. ALL MASONRY LINTELS SHALL HAVE A MINIMUM OF 8" BEARING UNLESS NOTED OTHERWISE.
2. PROVIDE A VERTICAL CONTROL @ THE ENDS OF ALL LINTELS @ BOTH SIDES OF OPENING.



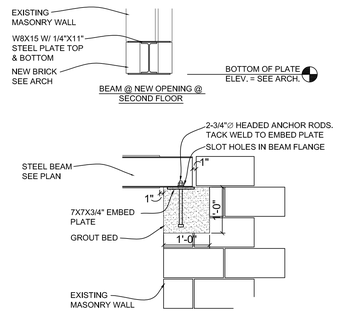
Lintel Type #1



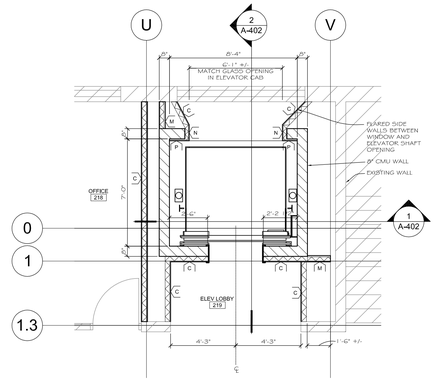
8 Deck Support Angle
Scale: No Scale



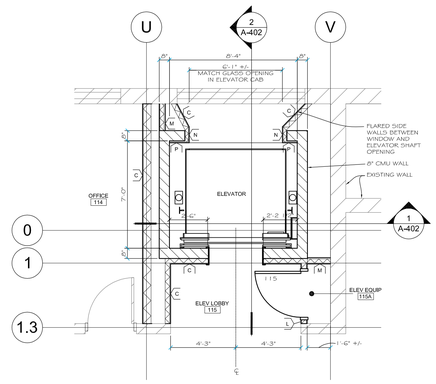
7 Elevator Roof Framing
Scale: No Scale



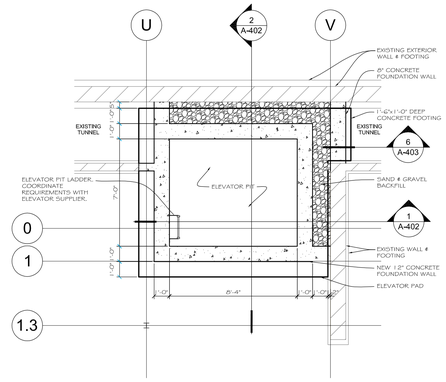
6 New Bm Bearing @ Existing
Scale: No Scale



1 Enlarged Second Floor Plan
Scale: 1/4" = 1'-0"



2 Enlarged First Floor Plan
Scale: 1/4" = 1'-0"



3 Enlarged Tunnel Level Plan
Scale: 1/4" = 1'-0"

Concrete

1. Footing widths not dimensioned shall be a total of 12" wider than the wall above (16" minimum) .
2. All concrete work shall conform to ACI 301 and ACI 318. All reinforcing supplied shall conform to ACI 315.
3. Dowels shall be set 3" from the bottom of footing and shall extend above the top of footing the minimum distance required for lap lengths or as noted on the drawings. Bars shall be the same size and spacing as bars above.
4. Bars marked continuous shall be in as long lengths as possible. Lap bars as shown in Typical Reinforcement Table. Laps shall occur in regions of low stress only. Provide corner bars in the same size and number as the continuous reinforcing at all concrete and footing intersections or 90 degree bends of proper length at the ends of reinforcing bars at intersections.
5. Reinforcing in footings shall be accurately placed before placing concrete. Do not float reinforcing into footings.
6. Mechanically vibrate all concrete.
7. Do not place pipes, ducts, or chases in structural concrete without approval of the ARCHITECT/ENGINEER. See architectural, mechanical, and electrical drawings for locations.
8. Construct form work so concrete members and structures are of size, shape, alignment, elevation, and position indicated within tolerance limits of ACI 117.
9. Finish concrete suspended slabs and slabs on grade per the following criteria according to ASTM E1155. Comply with ACI 302.1R recommendations for screeding, re-straightening, and finishing operations for concrete surfaces. Do not wet concrete surfaces.
   A. Slabs on grade [TYPICAL]: specified overall values of flatness F[F]=35 and levelness F[L]=25 with minimum local values of flatness F[F]=24 and levelness F[L]=17.
10. Control joints in slab on grade shall be placed at column line intersections and as shown on plans. Where joints are not shown, submit proposed jointing lay-out to ARCHITECT for approval.
11. All reinforcing steel shall be bent cold, detailed, fabricated, and held in place in accordance with the "Manual of Standard Practice For Detailing Reinforced Concrete Structures" [ACI 315 latest edition], except as otherwise detailed or specified.
12. Provide the following concrete cover to reinforcing:
    for concrete cast against the earth and permanently exposed to earth: 3"
    for concrete exposed to earth or weather: 2"
    for concrete not exposed to weather or in contact with earth:
    slabs, walls, joists: 3/4"
    beams, columns: 1 1/2"
13. The CONTRACTOR shall exercise extreme caution so as to not undermine, disturb, damage, or in any way cause un-desirable movement, cracking, and/or settlement of adjacent construction. The CONTRACTOR is completely responsible for all shoring, forming, bracing, etc.
14. The concrete mix design for slabs on grade shall be designed to reduce the potential for shrinkage and curling by reducing the amount of cement [up to 515 pounds maximum] in the mix and increasing the amount of course aggregate [40% minimum]. Placing and finishing techniques shall also be considered in the mix design.
15. Floor slab on grade shall be 5" thick reinforced with 6x6, 10-10 WWM over 4" crushed concrete layer and 10 mil vapor barrier unless noted otherwise. All mesh reinforcing shall be supplied in sheet stock not roll stock.
16. All foundations have been designed for a "net" allowable bearing pressure of 1,500 psf.
17. Sub-soils supporting or in direct contact with footings, slabs on grade, or other foundation elements shall be protected against freezing conditions that could cause movements of r other detrimental effect to the structure as a whole or to any of its component parts.
18. All slabs on grade shall bear on properly compacted backfill. Any unacceptable backfill as determined by project's geotechnical engineer, shall be removed and replaced as required by the geotechnical engineer.
19. The CONTRACTOR shall employ the services of GeoTek of Sioux Falls, SouthDakota to perform all required field observations and tests.
20. Special care shall be taken not to disrupt adjacent construction. The CONTRACTOR is completely responsible for all shoring, forming, bracing, etc.
21. The bottoms of all exterior footings shall be placed at a minimum depth of 48" below finish grade. Coordinate footing elevations with final grading plan.
22. Submit concrete mix designs to the STRUCTURAL ENGINEER for approval.
23. Submit shop drawings of reinforcing steel for footings and other concrete work to the STRUCTURAL ENGINEER for approval.

Structural Steel

1. Structural steel shall be fabricated and erected in conformance with "AISC Specification for Design, Fabrication, and Erection of Structural Steel For Buildings".
2. Shop paint structural steel with fabricator's standard lead and chromate free, non-asphaltic, rust inhibiting primer, unless noted otherwise. All exterior exposed steel shall be galvanized.
3. All connections shall be designed by the supplier based upon maximum beam reactions unless noted otherwise on the drawings.
4. All bolted connections shall be high strength ASTM A325 bolts. Tension indicating "twist-off" type bolts shall be used for all main member connections. Bolts shall be installed per the requirements of RCSC's "Specification For Structural Joints Using ASTM A325 or A490 Bolts".
5. Comply with American Welding Society standards. ALL welders shall have valid certificates and have current experience in the types of welds called for.
6. Provide anchor rods in lengths stated on the drawings. All anchor rods for column base plates shall be secured in place with a template and shall be tied securely to reinforcing bars before placing concrete.
7. Submit shop drawings to the STRUCTURAL ENGINEER for approval.

Steel Deck

1. Steel deck supplier shall be a member of the Steel Deck Institute. The material, design, manufacture, and installion shall be in accordance with the Steel Deck Institute and AISC.
2. Metal roof deck shall be 3 span minimum.
3. The deck supplier shall provide closure plates, sump pans and drain plates, ridge and valley plates, cover plates, welding washers, and other accessories required to provide a finished surface for application or insulation and roofing.
4. Welding shall conform to AWS D1.3. Welders shall have current welding certificates and have current experience with required welds.
5. See the details this page for required attachment of the deck to structure and for uplift load. Welded connections only at the ends and at intermediate supports. Sidelaps shall be attached with screws.
6. Provide L3x3x1/4" around all roof penetrations. See details for other requirements at roof drains, mechanical penetrations, and roof openings.

Special Inspections

1. The OWNER shall employ the services of an independent inspection agency.
2. Special Inspections shall be performed by an independent inspection agency in conformance with IBC 2009, section 1704 and as noted below. Testing and inspection shall be conducted under the supervision of a licensed engineer employed by the inspection agency. The engineer shall be deemed the designated engineer of record for special inspections performed by his/her firm or his/her consultants. Inspectors shall be ICBO certified as a minimum requirement and approved by the BUILDING OFFICIAL
3. The designated engineer of record for special inspections shall be responsible for defining the activities of the inspectors, for certifying the qualifications of the inspectors with the building official, for attending the pre-construction meeting to define the scope of services and testing or testing procedures that are required as outlined in IBC 2009. The designated engineer of record for special inspections shall meet with the ARCHITECT prior to the pre-construction meeting.
4. Special Inspection shall be provided in addition to the inspections conducted by the local building department and shall not be construed to relieve the owner or his authorized agent from requesting the periodic and called out inspections required by section 104.4 of IBC 2009.
5. The CONTRACTOR shall notify inspection agency when construction is ready for inspection.
6. The CONTRACTOR shall provide access to construction that is elevated above grade.
7. Non-conforming inspected items shall be corrected and re-inspected before being covered by further construction. Costs for re-inspected items shall be paid for by the CONTRACTOR.
8. Special inspections required include, but may not be limited to the following:
   a. CONCRETE per table 1704.4 and section 1704.4 with all applicable exceptions
   b. ANCHOR RODS installed in concrete per table 1704.4
   c. REINFORCING per table 1704.4 and exception for concrete requiring special inspection
   d. WELDING per section 1704.3
   e. STRUCTURAL STEEL
   f. GRADING, EXCAVATION, AND FILLING per section 1704.7 [see the Geotechnical Report]
   g. EXPANSION BOLTS, SCREW ANCHORS, AND ADHESIVE ANCHOR INSTALLATION to verify installation in accordance with ICBO reports for the respective item.
9. Reports of special inspections shall be submitted to the CONTRACTOR and to the ARCHITECT. A final report shall be compiled by the inspection agency for submission to the OWNER, CONTRACTOR, ARCHITECT, and BUILDING OFFICIAL.

GOVERNING CODE: 2009 International Buidling Code

SOILS REPORT:

A soil investigation was performed for the building by Geotek of Sioux Falls, South Dakota. The soil investigation report [Geotek No.: 0000000000] is included in the specifications. The CONTRACTOR should become familiar with the report and the requirements for ever excavation and grading.

Allowable net soil bearing pressure.....1500 psf minimum at grade beams, continuous footings, and pad footings.

DESIGN LOADS:
- Occupancy Category.....II
- Live Loads
  - Roof
    - minimum roof live load.....20 psf
  - Snow
    - Ground Snow, Pg.....35 psf
    - Flat roof snow, Pf.....25.0
    - Snow exposure, Ce.....1.0
    - Thermal factor, Ct.....1.0
    - Importance factor, Is.....1.00
    - Rain on snow [Pg > 20 psf].....NA
    - Unballanced snow loads.....ASCE 7 Section 7.6
  - Floor
    - slab on grade.....100 psf
    - corridor.....100 psf
- Wind Loads
  - Basic wind speed.....90 M.P.H.
  - Importance factor, Iw.....1.00
  - Exposure.....B
  - Net uplift.....15 psf
  - Cladding.....see applicable tables in IBC 2009
- Seismic Loads
  - Site classification.....D
  - Importance factor, Ie.....1.00
  - Seismic use group.....II
  - Seismic design category.....A
  - Spectral response coefficients
    - Ss = 0.1225
    - S1 = 0.0362
    - Sds = 0.131
    - Sd1 = 0.058
  - Basic seismic force resisting system: ordinary masonry walls & concentric steel brace
  - Design base shear: NA
  - Analysis procedure:
  - Response modification factor R = 3.00
- Roof Diaphragm Load: 200 plf

MATERIALS:

CONCRETE

28 Day Concrete Strengths [Minimum]:
- Footings.....3000 psi
- Slabs on grade.....4000 psi
- Walls and Piers.....4000 psi

Reinforcing Bars.....ASTM A615 Grade 60
Welded Bars and Anchors.....ASTM A706 Grade 60
Welded Wire Fabric.....ASTM A185

RECYCLED, CRUSHED CONCRETE
1" MINUS
1" MAXIMUM PARTICLE SIZE
LESS THAN 6% PASSING THE NO. 200 SIEVE

STRUCTURAL STEEL
- W Shapes.....ASTM A 992
- Rolled shapes & plates.....ASTM A36
- Tubes.....ASTM A500 Grade B
- Pipes.....ASTM A 53 Type E or S
- Bolts (unless noted otherwise) .....ASTM A325
- Anchor Rods.....ASTM F1554, Grade 36 E or S
- Welding Electrodes.....E70XXX unless noted otherwise
- Expansion Bolts.....Hilti Kwik Bolt 3 or approved equivalent
- Adhesive Anchors.....Hilti HIT HY 150 max, or approved equivalent
- Screw Anchors.....Hilti HUS-H or Simpson Titen HD
- Sleeve Anchors.....Hilti HLC or approved equivalent

STEEL ROOF DECK.....1 1/2", Type "B", 20-Gauge, Painted

CONCRETE FLOOR & FORM DECK.....1 1/2", Type "C", 24-Gauge, Galv. at frost slabs

SPECIAL INSPECTION
Special Inspection shall be performed, as required by local building official, according to Chapter 17 of IBC, and as direct

STEEL CONSTRUCTION
Table 1704.3
All exceptions apply.
CONCRETE CONSTRUCTION:
Table 1704.4,
Exceptions 1, 2, 3, and 5 apply.

CODES
IBC 2009
ASCE 7-05
ACI 318-08 [Cast-in-Place Concrete]
AISC 13TH EDITION (Structural Steel)

LOADS [psf]
DEAD LOAD
Roof 25 [roofing]

LIVE LOAD
Roof 20 [minimum]
25 [snow]

No LIVE LOAD REDUCTIONS taken

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1221 N Street, Suite 600
Lincoln NE 68508
Phone 402-476-9700
Fax 402-476-9722

Vermillion
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Vermillion SD 57069
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DAVIS DESIGN
Architecture Engineering Interior Design

This document originally issued and sealed by:
Matthew C. Metcalf
Registered Architect
8698
on: 01-13-2015
This media should not be considered a certified document.

CLIENT INFORMATION
University of South Dakota
Vermillion, SD 57069

PROJECT INFORMATION
Patterson Hall Mech./Elec. Infrastructure Upgrade

OSE #	R0614--15X
Job #	14-0185

ISSUE DATE: 01-13-2015

Revisions:

ID	Date	Description
1	1/22/15	Structural Notes

CHECKED:
AUTHOR AS

SHEET TITLE
Elevator Plans & Details

SHEET NUMBER
A-403